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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,392	10/22/2003	Dong-Jae Shin	5000-1-467	8643

33942 7590 12/13/2005

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EXAMINER	
NGUYEN, PHILLIP	
ART UNIT	PAPER NUMBER
2828	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/691,392	SHIN ET AL.	
	Examiner	Art Unit	
	Phillip Nguyen	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. ('290).

With respect to claim 7, Lee discloses in Fig. 3-4 a WDM (Wavelength Division Multiplexing) light source comprising: a light source element (ILS); a Fabry-Perot (FP) laser (F-P LD) for amplifying and outputting only a lasing mode coinciding with a wavelength of light injected to the FP laser, while suppressing lasing modes not coinciding with the wavelength of the injected light; a WDM device (MUX) for spectrum-slicing light generated from the light source element, for providing the spectrum-sliced light as the injected light to the FP laser, and for multiplexing a signal mode-locked by the FP laser; and a circulator (CIR) for inputting the light generated from the light source element to the WDM device and outputting the signal multiplexed by the WDM device to a transmission link (Multi-Channel WDM Signal), wherein a lasing-mode interval of the FP laser is set to be substantially less than a 3dB linewidth of the injected light (see paragraph 0085), so that at least one lasing mode exists inside the 3dB

linewidth of the injected light, thereby maintaining a mode-locked state of the FP laser irrespective of changes in external temperature.

With respect to claim 8, Lee discloses the lasing mode interval of FP laser exceeds half 3dB linewidth which is between 25 dB to 27.3 dB (paragraph 0086).

With respect to claim 9, it is inherent that the lasing mode interval of FP laser is controlled by the length of its cavity.

With respect to claim 10, Lee also discloses in Fig. 7 the injected light having left-right asymmetric spectrum with respect to the central wavelength thereof.

With respect to claims 11, Lee discloses the light source being ILS which is incoherent light (Paragraph 0036) and the incoherent light includes an ASE (paragraphs 0039 and 0085).

Claims 1-6 recite a method for maintaining a mode-locked state of a Fabry-Perot laser. Since Lee discloses the product, it is inherent product by process for performing the method as recited in the claims.

3. Claims 1, 3, 5-6, 7, 9, and 11-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Han et al. ('574).

With respect to claim 7, Han discloses in Fig. 1-2 a WDM (Wavelength Division Multiplexing) light source comprising: a light source element (41); a Fabry-Perot (FP) laser 522 for amplifying and outputting only a lasing mode coinciding with a wavelength of light injected to the FP laser, while suppressing lasing modes not coinciding with the wavelength of the injected light; a WDM device 20 for spectrum-slicing light generated from the light source element, for providing the spectrum-sliced light as the injected light to the FP laser, and for

multiplexing a signal mode-locked by the FP laser; and a circulator 13 for inputting the light generated from the light source element to the WDM device and outputting the signal multiplexed by the WDM device to a transmission link, wherein a lasing-mode interval of the FP laser is set to be substantially less than a 3dB linewidth of the injected light (see paragraph 0028), so that at least one lasing mode exists inside the 3dB linewidth of the injected light, thereby maintaining a mode-locked state of the FP laser irrespective of changes in external temperature.

With respect to claim 9, it is inherent that by controlling the cavity of the FP laser, the lasing mode of it will be controlled.

With respect to claims 11-12, Han discloses the prior art the light source being incoherent such as ASE (paragraph 0006).

With respect to claim 13, Han discloses the WDM device includes 1xN AWG.

Citation of Pertinent References

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Patent Application Publication to Han et al. discloses Wavelength Division Multiplexing-Passive Optical Network System, U.S. PG Pub No. 2004/0213574

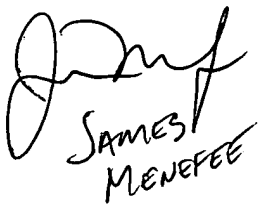
The Patent Application Publication to Lee et al. discloses Low-Cost WDM Source with an Incoherent Light Injected Fabry-Perot Laser Mode, U.S. PG Pub No. 2001/0004290

Communication Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Nguyen whose telephone number is 571-272-1947. The examiner can normally be reached on 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MINSUN HARVEY, can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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